

REMARKS

In response to the office action dated October 15, 2007, Applicants have amended the title and withdrawn claims 13-21. No new matter has been introduced by the above amendments. Claims 1-4 and 6 are presented for examination.

Initially, Applicants would like to point out three issues regarding the scope of the subject matter being examined in this office action.

First, in the response to the restriction requirement filed on September 24, 2007, Applicants elected for prosecution the invention of Group I, i.e., claims 1-4 and 6, drawn to the compounds of formula (I), in which T and W are CX¹ and M is C. However, the Examiner indicates in the present office action that the subject matter being examined are compounds of formula (I) in which T, W, and M are C. Applicants assume that the Examiner examined compounds of formula (I) in which T and W are CX.

Second, Applicants elected claims 1-4 and 6 in which V is S for prosecution in Applicants' September 24, 2007 response. However, the Examiner indicates in the present office action that the subject matter being examined are compounds of formula (I) in which V is "S preferably, NR7, O, CH₂, S(O)n, OCH₂, CH₂O, NR₇CH₂, CH₂NR₇, CH₂S(O)n, S(O)nCH₂, CH₂CH₂ or CH=CH," i.e., all groups assigned to variable V. Accordingly, Applicants assume that the Examiner examined compound of formula (I) in which V includes all of the groups assigned to it in claim 1.

Finally, in the September 24, 2007 response, Applicants elected for prosecution claims 1-4 and 6 in which U, Y, and R₁-R₈ are limited to certain groups. However, the Examiner does not indicate in the present office action whether other groups assigned to variables U, Y, and R₁-R₈ were also examined. Applicants assume that all groups assigned to these variables have been examined in this office action.

In any event, given that it is not entirely clear exactly what subject matter in claim 1 has not been examined, Applicants have not amended this claim at this time.

¹ X is defined in claim 1.

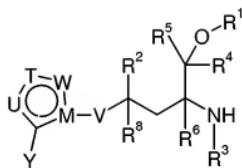
Objection

The title of this application is objected to as being not descriptive. The Examiner requests that “[a] new title is required that is clearly indicative of the invention to which the claims are directed.” Applicants have replaced the title “Novel Compounds” with “Heteroarylalkylamine Compounds.” Accordingly, Applicants request reconsideration and withdrawal of this objection.

Rejection under 35 U.S.C. §102(b)

Claim 1 is rejected as being anticipated by Germane et al., Khimiko-Farmatsevticheskii Zhurnal, 10(10), 1976, pages 16-21 (“Germene”).

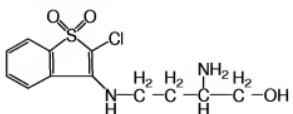
Claim 1 covers compounds of formula (I):



(I)

in which T and W independently represent, among others, CX, each X group independently representing H, C1 to 4 alkyl, C1 to 4 alkoxy, halogen, OH, SH, CN, C≡CH, N(R¹⁴)₂, NO₂, CH₂OH, CHO, COCH₃ or NHCHO; R¹ and R⁸ independently represent H or Me; and R² represents C1 to 4 alkyl, C2 to 4 alkenyl, C2 to 4 alkynyl, C3 to 6 cycloalkyl or a 4 to 8 membered saturated heterocyclic ring; or R₂ represents phenyl or a five or six membered aromatic heterocyclic ring.

Germene describes a compound RN 62268-34-2:



In this compound, a phenyl ring is fused to the thienyl ring at the positions corresponding to variables T and W recited in claim 1. By contrast, claim 1 requires that T and W are independently CX where X is H, C1 to 4 alkyl, C1 to 4 alkoxy, halogen, OH, SH, CN, C≡CH, N(R¹⁴)₂, NO₂, CH₂OH, CHO, COCH₃ or NHCHO. The two CX groups assigned to T and W do not form a phenyl ring as shown in the structure of RN 62268-34-2. Thus, claim 1 is not anticipated by Germane.

In addition, in RN 62268-34-2 described in Germane, the groups corresponding to R² and R⁸ recited in claim 1 are both H. By contrast, R² recited in claim 1 is C1 to 4 alkyl, C2 to 4 alkenyl, C2 to 4 alkynyl, C3 to 6 cycloalkyl, a 4 to 8 membered saturated heterocyclic ring, phenyl, or a five or six membered aromatic heterocyclic ring, not H. Thus, claim 1 is not anticipated by Germane on this additional independent ground.

Accordingly, Applicants request reconsideration and withdrawal of this rejection.

Double patenting rejection

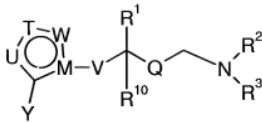
Claims 1-4 and 6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, 4, and 6 of U.S. Patent Application No. 10/521,728 ("the '728 application").

Claims 1-4 and 6 cover compounds of formula (I) in which CR⁴R⁵OR¹ (e.g., CH₂OH) is attached to a carbon atom that is directly bonded to the nitrogen atom.

The Examiner contends that

"[t]he difference between co-pending application no. 10/521,728 and the instant application is that in the co-pending application Y is CH₂OH, while in the instant application the CH₂OH moiety is found next to the amino group. ... Although the conflict claims are not identical, they are not patentably distinct from each other because applicant's instantly claimed invention is a homologue of the [invention] of the copending application. Therefore one skilled in the art would have found the variation obvious when faced with the co-pending applications because the compounds are used for the same pharmacological use so one skilled in the art would expect similar properties and results." Applicants disagree.

Claims 1, 3, 4, and 6 of the '728 application require compounds of formula (I) shown below:



(I)

As correctly pointed out by the Examiner, formula (I) required by claims 1, 3, 4, and 6 in the '728 application include compounds in which Y is CH₂OH. However, these claims, as well as any of the other portions in the '728 application, do not disclose or suggest moving the CH₂OH moiety to another location on the same compound, let alone moving the CH₂OH moiety to the location of CR⁴R⁵OR¹ shown in formula (I) required by claims 1-4 and 6 of the present application. Indeed, the '728 application teaches that the group corresponding to CR⁴R⁵OR¹ in formula (I) required by claims 1-4 and 6 of the present application is H, not CH₂OH.

Further, the compounds covered by claims 1-4 and 6 of the present application are inhibitors of nitric oxide synthase. Two compounds having a CH₂OH moiety located on two different positions would interact different parts of the binding sites on the nitric oxide synthase. Thus, contrary to the Examiner's assertion, one skilled in the art would not have expected that such two compounds would have similar pharmacological activity.

For the reasons set forth above, claims 1-4 and 6 are not obvious over claims 1, 3, 4, and 6 of the '728 application. Accordingly, Applicants request reconsideration and withdrawal of this rejection.

CONCLUSION

Applicants submit that the grounds for rejection asserted by the Examiner have been overcome, and that claims 1-4 and 6, as pending, define subject matter that is novel and non-obvious. On this basis, it is submitted that all pending claims are now in condition for allowance, an action of which is requested.

The fee in the amount of \$460 for the Petition for Two-Month Extension of Time is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account

Applicant : Mete et al.
Serial No. : 10/521,727
Filed : January 18, 2005
Page : 13 of 13

Attorney's Docket No.: 06275-430US1 / 100772-1P US

authorization. Please apply any other charges to deposit account 06-1050, referencing
Attorney's Docket No 06275-430US1.

Respectfully submitted,

Date: March 3, 2008

/Tony Zhang/
Tony Zhang, Ph.D.
Reg. No. L0256

Fish & Richardson P.C.
Citigroup Center
52nd Floor
153 East 53rd Street
New York, New York 10022-4611
Telephone: (212) 765-5070
Facsimile: (212) 258-2291

30402358.doc